

ANALYST:		VPDES NO	
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Parameter: Total Residual Chlorine
Method: DPD Colorimetric (LaMotte)
 04/06

METHOD OF ANALYSIS:

X	MANUFACTURER'S INSTRUCTIONS (LaMotte Method 7916)
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		Y	N
1)	Are only DPD Instrument Grade tablets used? (Rapid Dissolve Grade tablets cannot be used with meters) [Mfr. instructions]		
2)	Are the LaMotte DPD #1 & #3 tablets stored in a cool, dry place and within manufacturer's expiration date? NOTE: DPD tablet #4 may be used in place of #1 & #3. [7.3.1 and 7.3.2]		
3)	Are cells or sample vials clean and in good condition? [Permit]		
4)	Has an initial calibration curve been established using a blank and five standards ranging from 0.1 to 4.0 mg/L chlorine? [10.1]		
5)	Is the calibration coefficient ≥ 0.995 ? [Permit]		
6)	If using the factory installed calibration (1100 & 1200 colorimeters), has the curve been verified using a blank and three standards? [Permit] NOTE: If the factory installed calibration curve is adjusted, the entire curve must be reverified.		
7)	Was the initial calibration verified by analyzing an alternate source quality control sample with 90-110% recovery? [10.7]		
8)	Is the instrument checked daily using a check standard with recovery of 90-110%? [9.3.4]		
9)	After the initial calibration curve is established, is the linearity checked every 6 months using a blank and 3 standards? (Recommend using 0.0, 0.1, 1.0, and 2.0 mg/L) [9.2.2]		
10)	Does the cell used have a light path of at least 1 cm? [11.1]		
11)	Is the spectrophotometer set at 515 nm, or the filter photometer set from 490-520 nm? [11.6]		
12)	Is the sample water being analyzed used to zero the meter? [11.1]		
13)	Is the light shield closed when the meter is zeroed and when the sample is analyzed? [Mfr.]		
14)	Is the 10 mL aliquot of sample measured in a graduated cylinder? [11.3]		
15)	Are both DPD tablets #1 and #3 (or #4) crushed after a <u>small amount</u> of sample from the graduated cylinder is added to the cell? [11.3]		
16)	After crushing the tablets, is cell filled with remainder of 10 mL aliquot of sample and mixed? [11.5]		
17)	Are results measured within 10 to 30 seconds after DPD tablets dissolve? [11.6]		
18)	If read-out is greater than 4.0-mg/L, is sample diluted correctly, then reanalyzed? [11.6]		
19)	Is a Quality Control Sample (alternate source from standards) analyzed quarterly with a recovery of 90-110%? [9.2.3]		

PROBLEMS: